Homework Assignment 4 **Math 776**
Due Monday Nov. 11

These problems are from the second edition of Evan's textbook:

Page 306: Problem 7.

Page 307: Problems 8, 9, 11, and 14.

Problem 6: Note that the space $W^{1,2}(\mathbf{R}^2)$ is "borderline" for the Sobolev embedding theorem in the sense that $k = n/p$. Show that $W^{1,2}(\mathbf{R}^2)$ is not a subset of $C(\mathbf{R}^2)$ by constructing an element of $W^{1,2}(\mathbf{R}^2)$ that is unbounded at the origin.